

COST *and* MANAGEMENT

VOL. XXIV

NOVEMBER

No. 10

THE SIGNIFICANCE OF SALES VOLUME IN ESTABLISHING LIST PRICES

By F. W. Peake 346

Mr. F. W. Peake, Vice-President and Treasurer, George A. Breon & Company, pharmaceutical manufacturers, has been associated with that company for twenty-two years. Before joining the Breon Company, he had been associated with a Kansas City public accounting firm for three years. He was President of the Kansas City Chapter, N.A.C.A., for the year 1942-43, and this article has been made available to Cost and Management, through the kindness of N.A.C.A. and the author.

COST ACCOUNTING IN A DIVERSIFIED FOOD INDUSTRY

By J. G. McKnight 355

James Grant McKnight is Comptroller and Secretary of Shirriff's Limited and submitted this article in qualifying for his degree of Registered Industrial Accountant. Mr. McKnight is well known to most members of the Ontario Society, since he was active in the formation of the first Toronto Student Section and has had the interests of the Society at heart ever since. He is a member of the Controllers Institute of America and the Toronto Board of Trade. His background of experience includes varied executive positions with several large Canadian companies.

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Published Monthly by the
SOCIETY OF INDUSTRIAL AND COST ACCOUNTANTS OF CANADA
Incorporated 1920

Editorial and Business Offices: 66 King St. E., Hamilton, Ontario.
J. N. Allan, R.I.A., Secretary-Manager and Editor

Subscription price to non-members, \$5.00 per year. Single copies, 50 cents. Members desiring five copies or more of a single issue, may obtain them at 25 cents. Opinions expressed by articles and comment are not necessarily endorsed by the Society of Industrial and Cost Accountants.

Authorized as second class mail, Post Office Department, Ottawa.

SOCIETY NOTES

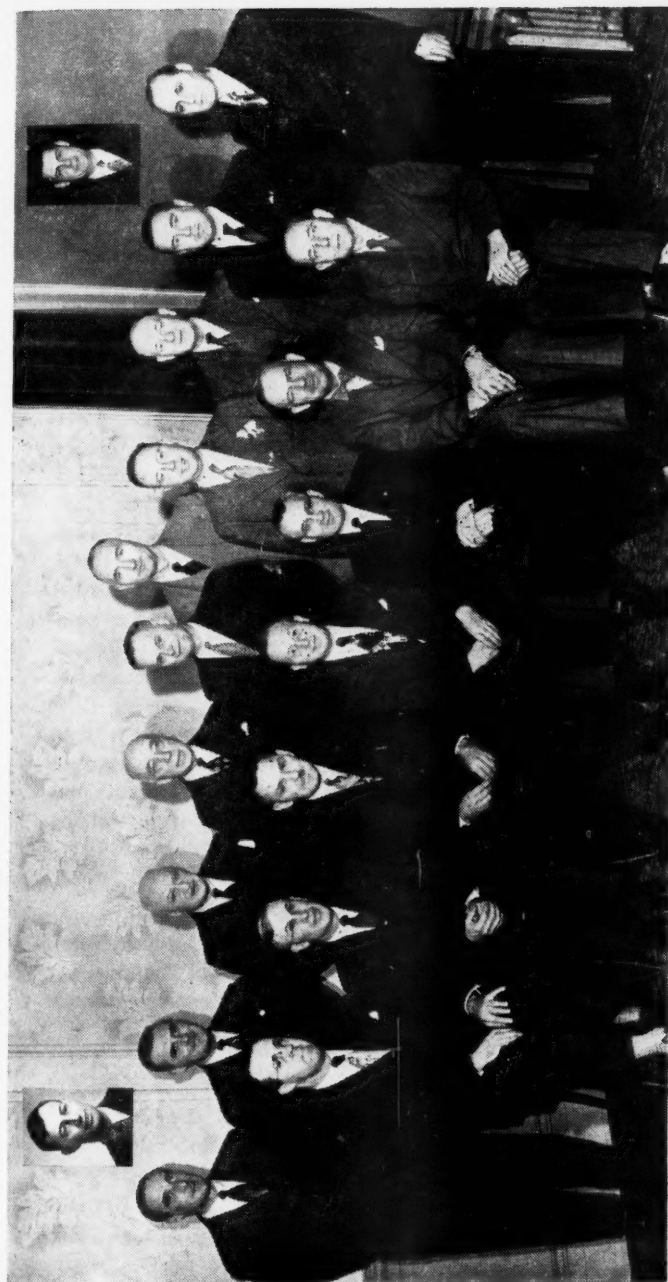
MEETING OF THE CO-ORDINATING EXECUTIVE COMMITTEE HELD IN WINNIPEG

As was announced in the October issue of "Cost & Management", a Co-ordinating Executive Committee was created to review existing policies, and to formulate new policies, in keeping with the expanding needs of an expanding organization. It was also charged with the responsibility of co-ordinating the efforts of the Canadian and Provincial Societies in every phase of their activities.

This committee is comprised of the six officers of the Canadian Society and two officers of each Provincial Society, making a total of 22 members. The first meeting was held in Winnipeg, on October 27th and 28th, and it was worthy of note, that of the 22 members on the committee, 18 were present, representing the Canadian Society and 7 of the Provincial Societies. The meeting was, in itself, visual evidence of the increasing magnitude of the Society, and when one examined the wide range of subjects included on the agenda for discussion, the broad scope of its activities at once became apparent.

The importance of having such a representative group meet together can only be fully appreciated when one considers the ramifications of the organizational structure of the Society and the scope of its broad program. The Society of Industrial and Cost Accountants of Canada now has eight affiliated provincial societies with 28 chapters comprising 3,000 members. There are 1,700 students studying the courses prescribed by the Society and conducted through the co-operation of 15 universities. In addition, there are, of course, the other activities of the Society embracing its magazine, research, legislation, public relations and library, in which each provincial society has a part. The complexities which must necessarily attend such an effort as this, have been largely dissipated through the meeting of this committee.

The meeting in Winnipeg accomplished this and more. It accomplished something which can scarcely be expressed in words, but which will make itself felt when the delegates go back



Front Row—J. N. ALLAN, R.I.A., Secretary-Manager; J. B. WHELIHAN, R.I.A., 3rd Vice-President; G. I. MacKENZIE, R.I.A., 1st Vice-President; N. TERRY, C.P.A., R.I.A., President; A. V. MADGE, R.I.A., 2nd Vice-President; F. E. WOOD, O.B.E., R.I.A., Honorary Secretary; D. C. HODSON, R.I.A., Manitoba.
Second Row—K. H. ORR, R.I.A., British Columbia; R. LBAMFORD, C.A., R.I.A., Saskatchewan; W. AITKIN, C.A., R.I.A.; Manitoba; G. H. ELLIOTT, R.I.A., Manitoba; J. S. BENSON, R.I.A., Ontario; G. S. PERRING, R.I.A., Alberta; C. R. MacFADDEN, R.I.A., Nova Scotia; T. H. RATHJEN, C.A., R.I.A., Manitoba; D. J. B. PEDDIE, R.I.A., Quebec; C. H. DAVIS, R.I.A., British Columbia

Inserts—Left, R. H. METCALFE, R.I.A., Ontario; right, H. E. BUTLER, R.I.A., Saskatchewan

COST AND MANAGEMENT

to their respective councils with a much broader outlook on the work of the Society as a whole, and a vision that extends a little further into its future.

FIRST STUDENTS GRADUATED BY THE BRITISH COLUMBIA AND ALBERTA SOCIETIES

At the September meeting of the Vancouver Chapter, certificates of Registered Membership were awarded the first four students to graduate in British Columbia. At the October meeting of the Calgary Chapter, the first two students to be graduated by the Alberta Society were presented with their certificates by President Norman Terry.

The Alberta and B.C. Societies were incorporated in 1944 and 1945 respectively, receiving the necessary legislative powers to provide courses of study and grant the use of the designation R.I.A. Since that time, these two societies, through the close co-operation of Queen's University, the University of Toronto and the universities in Alberta and British Columbia, have been training students in ever-increasing numbers to become qualified industrial and cost accountants. This has represented a very great effort on the part of the officers and members of Council of these two Societies, and the awarding of these certificates has made manifest the results of their efforts.

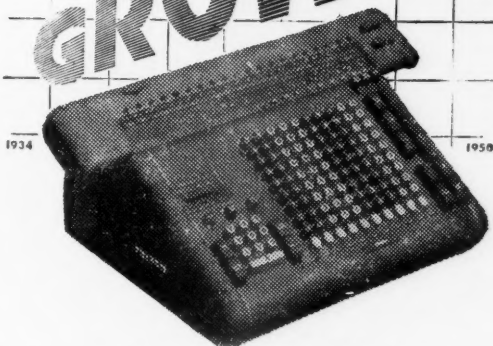
This only marks the beginning, and each year will witness an increasingly greater number of candidates who have successfully qualified as registered industrial and cost accountants and become more valuable assets in the human balance sheet of the companies by which they are employed.

PRESIDENT VISITS WESTERN CHAPTERS

During the month of October, President Norman Terry completed a most successful tour of the Western Chapters. At every point, he reports he was accorded a most enthusiastic reception by well-attended meetings.

In September, he attended meetings of the Chapters in his home province of B.C. These meetings were of exceptional interest. He attended the opening meeting of the Vancouver Chapter, when certificates of registered membership were awarded the first students to graduate in the B.C. Society. In Victoria, he officially presented the Fernie Trophy, for the greatest increase in Chapter membership last year.

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COST AND MANAGEMENT

In October, he addressed Chapter meetings in Edmonton, Saskatoon, Winnipeg, Regina, Lethbridge and Calgary. In Calgary, he presented certificates to the first two students to be graduated by the Alberta Society. He was, of course, in Winnipeg for the meeting of the Co-Ordinating Executive Committee, and he also made a side trip to Fort William and Port Arthur and enjoyed a dinner meeting with the Chapter directors. He will pay his official visit to this Chapter, in February.

From information which has come in from the Western Chapters, Mr. Terry has left a very vivid impression on the minds of those who were fortunate enough to meet him. His unbounded enthusiasm in the interests of the Society, and his pride in its accomplishment have inspired his listeners in every meeting he has addressed.

During the months of February and March, he will be visiting most of the Chapters in Eastern Canada.

New Members

EASTERN TOWNSHIPS CHAPTER

- J. G. Kenna, Julius Kayser & Co. Ltd., Sherbrooke
- E. E. Stewart, Panther Rubber Co. Ltd., Sherbrooke
- W. McCullough, Paton Manufacturing Co. Ltd., Sherbrooke
- J. B. Beaulieu, Julius Kayser & Co. Ltd., Sherbrooke
- L. J. Lane, R. Wallace & Sons of Canada Ltd., Cookshire
- L. Memory, 42 Summerville St., Lennoxville

MONTREAL CHAPTER

- G. Dupuis, Sicard Inc.
- H. Lefrancois, C.A., 7095 B St. Denis St.
- E. S. Woolley, C.A., P. S. Ross & Sons
- R. M. Parkinson, Clarkson, Gordon & Co.
- W. D. Mahoney, Kraft Foods Ltd.
- J. L. Johnson, Burroughs Wellcome & Co., Ville La Salle
- J. W. Glen, Canadian Car & Foundry Co. Ltd.
- F. Guerette, Dept. of National Revenue
- F. Thomson, Canadian Industries Ltd.
- J. Demers, Coca-Cola Ltd.
- R. A. Brunet, Eastern Steel Products Ltd.
- M. Lanoix, Laval, Bedard, Messier, Gascon, C.A.
- Thos. C. Mulligan, Kraft Foods Ltd.

NOVA SCOTIA SOCIETY

- Donald L. Gregg, Lewis Ltd., Truro
- Frederic C. Burton, Lee & Martin, Chartered Accountants, Halifax
- A. Irvine Barrow, C.A., Barrow, Nicoll & MacIntosh, Halifax
- Ernest H. Abbott, C.A., Stanfield's Limited, Truro

NEW MEMBERS

- Clifford N. Banks, The Nova Scotia Power Commission, Halifax
 Harold G. Beazley, B.Com., University of St. Mary's College, Halifax
 Wilfred Berman, B.Com., Dalhousie University, Halifax
 Avarad A. Bishop, Bonnell Furnishings Limited, Sydney
 Leo J. Burke, Egan, Burke & Company
 Oswald F. Burke, T. P. Calkin Ltd., Kentville
 Allan M. Butler, C.A., Butler, Wood & Co., Halifax
 John G. Cotter, Johnson & MacDonald Limited, New Glasgow
 Errol M. Davidson, B.Com., C.A., H. R. Doane and Company, Halifax
 Harold J. Egan, B.Com., B.A., C.A., Archibald, Gurnham & Hanright,
 Halifax
 George A. Finlay, C.A., H. R. Doane and Company, Truro
 Donald C. Forgan, Maritime National Fish Division, National Sea
 Products Ltd., Halifax
 Douglas H. Fraser, Thompson and Sutherland, Ltd., North Sydney
 C. William Gurnham, B.Com., C.A., Archibald, Gurnham & Hanright,
 Halifax
 W. J. F. Hanright, C.A., Archibald, Gurnham & Hanright, Halifax
 H. T. Hart, Victoria General Hospital, Halifax
 G. E. Hayman, C.A., Nightingale, Hayman & Co., Halifax
 Delmar F. Horton, A. E. Fowles Limited, Halifax
 Carlyle N. Isner, Acadia Gas Engines, Ltd., Bridgewater
 Frank A. F. King, Department of National Revenue, Income Tax
 Division, Halifax
 Stuart MacInnis, Dominion Steel & Coal Corporation, Limited, and
 Dominion Coal Co. Ltd., Sydney
 Alvin M. MacIntosh, C.G.A., Pickford & Black Limited, Halifax
 James F. MacIntyre, Nova Scotia Steel & Coal Co. Ltd., Trenton
 Leslie W. MacKay, Shelburne Woodworkers Limited, Shelburne
 Hugh A. McMillan, Mersey Paper Company, Limited, Liverpool
 John J. MacNichol, Nova Scotia Liquor Commission, Halifax
 Ernest C. Mingo, Eastern Woodworkers, Ltd., New Glasgow
 Malcolm R. Moores, Yarmouth Ice Cream & Dairy Co. Ltd.,
 Yarmouth
 John R. Muir, The Eastern Car Company, Ltd., Trenton
 Ralph M. Nickerson, C.A., Barrow, Nicoll & MacIntosh, Sydney
 F. A. Nightingale, C.A., Nightingale, Hayman & Co., Halifax
 Louis E. Peverill, C.A., Province of Nova Scotia, Halifax
 Henry E. Potter, Province of Nova Scotia, Halifax
 Harold A. Benouf, B.Com., C.A., H. R. Doane and Company, New
 Glasgow
 Simon M. Rhude, M. R. Chappell, Building Contractor, Sydney
 Douglas F. Rutherford, Department of National Revenue, Halifax
 George R. Saunders, Pictou County Power Board, New Glasgow
 Ernest Smith, R. J. Logue, Limited, Sydney
 Hugh E. Spencer, B.A., C.A., Crowell, Balcom & Co., Halifax
 Walter A. Stech, C.A., Maritime Business College, Halifax
 John C. Wenning, B.Com., Maritime National Fish Division, National
 Sea Products, Ltd., Digby

COST AND MANAGEMENT

H. Leslie White, B.Com., Eastern Felt Corporation Limited, Truro
William Wood, C.A., Butler, Wood & Co., Halifax

QUEBEC CHAPTER

P. A. Masson, 80 Rue Fraser

TORONTO CHAPTER

M. Goldhar, C.A., Goldhar, Beckerman & Soupcoff

VANCOUVER CHAPTER

Miss L. E. Dolphin, Y. Franks
R. A. Smoker, Home Oil Distributors
R. D. Chalmers, 1110 West Georgia St.
G. E. Mendieta, Green Valley Fertilizer & Chemical Co. Ltd., New Westminster
B. A. Robinson, 4839 The Dale, Caulfield
Miss E. DeR. McMann, City of Vancouver Public Library
Miss Ivy R. Greef, 1104 West Georgia St.
T. P. Dunik, Forest Products Laboratory, U.B.C.
C. A. Harris, B.C.E. Railway Co. Ltd.
J. J. E. Mahoney, 1860 Haro—Suite 310
F. J. Matthews, Westminster Cannery Ltd., New Westminster
L. A. Milne, Chapman Motor & Machine Shop
D. C. Endacott, Jamieson Construction Ltd.
J. L. l'Anson, 1145 Robson St.
J. A. Legate, Dept. of Finance
J. A. Snell, 2945 Mahon Avenue, North Vancouver
W. B. Kitson, Unemployment Insurance Commission
R. M. Evans, Home Oil Distributors Ltd.
J. H. Heuring, Crane Ltd.
C. J. Macdonald, Canadian Pacific Railways
D. E. Mawhinney, Robert Simpson Pacific Ltd.
E. H. Patterson, Dominion Construction Co.
T. D. McCreath, McGavin Ltd.

VICTORIA CHAPTER

D. R. S. Arthur, Evans, Coleman & Johnson Bros.
H. Sedgman, Fishermen's Co-op. Assn.
H. D. Gibb, 2253 McNeil Avenue

WINNIPEG CHAPTER

Geo. H. Carley, McColl-Frontenac Oil Co. Ltd., St. Vital
John Colcough, Trans-Canada Airlines, St. James
Alfred C. Cranstone, Great West Life Assurance Co.
James Wm. Elmslie, Great West Life Assurance Co., Transcona
Frederick W. Harper, Brewery Products Ltd., East Kildonan
William R. King, Investors Syndicate of Canada
John F. Kubas, Canadian Publishers Ltd.
Lewis L. Landa, Financial Agencies Ltd.
Andrew E. Magis, Children's Hospital of Winnipeg
John Mullan, Minneapolis Moline of Canada Ltd.
E. D. McCarron, Huggard Equipment Co. Ltd.
John J. McGowan, Monarch Lumber Co. Ltd.

CHAPTER NOTES

Wm. F. McNabb, Canadian Wheat Board
James R. Pile, James Richardson & Sons
Archie D. Smith, Systems Equipment Ltd.
Wm. S. Sutter, H. R. MacMillan Sales Ltd.
Ernest Tesluk, Manitoba Power Commission
Nestor Tesluk, Genser & Sons
Leif T. Oddson, Winnipeg Hydro Electric System
Clifford G. Thomas, Investors Syndicate of Canada
Fernand Turenne, Modern Dairies Ltd.
Robert Hewitt, T. Eaton Co. Ltd.
Mark Spratt, Manitoba Rolling Mill Co. Ltd.
Herbert L. Davies, Dominion Rubber Co. Ltd.
Frederick M. Holl, Brewery Products Ltd.
William W. Muir, Libby, McNeill & Libby
Stanley D. Arnott, Great West Life Assurance Co.
Duerward N. Craven, Bond & Ronald Ltd.
Miss E. Mabel Mylrea, Children's Hospital of Winnipeg
Peter Savill, Motor Coach Ltd.
Andrew M. Swan, Industrial Development Bank
Godfrey D. Tippet, Leon A. Brown, Ltd.

Chapter Notes

CALGARY CHAPTER

The first fall meeting was held on September 28th, and a large group gathered to listen to an address by Mr. Stefan Hansen, of Winnipeg. Mr. Hansen, Actuary, of the staff of Group Department, The Great West Life Assurance Company, had travelled especially to Calgary, for this address, and was introduced by J. Payne. His speech dealt with the risks inherent with present Pensions Plans and was of a nature to particularly interest accountants. He was thanked by W. J. Mack.

A current Chapter problem, in regard to place of future meetings, was explained by H. H. Hutton, chairman, and after a thorough and lively discussion, it was decided that a change was to be made to Palliser Hotel.

The visit of Norman Terry, National President, to Calgary, in the course of his Western tour, was the occasion of a well-attended meeting of the Chapter, in the Palliser Hotel, on November 6th. The large number of students present was especially noteworthy. They came to listen to Mr. Terry's address on "Our Society, Past, Present and Future", and to do honour to L. R. Bennett and S. R. Lawrence, who were presented by Mr. Terry, with their certificates of degree of R.I.A. Messrs. Bennett and Lawrence are the first Calgary students to complete the courses of study.

Norman Terry concluded his speech with a message about the future of the Society, using the letters of our organization for five key points. "S" is the symbol for successful cost accounting controls, "I" for instruction through students' courses, "C" for chapter programs, "A" for accounting ability efficiently applied, and "C" for co-operation with government, business and industry. For the third point, the speaker outlined many valuable suggestions for topics of addresses and discussions.

COST AND MANAGEMENT

MONCTON CHAPTER

A most successful dinner meeting of the Chapter was held on Monday, October 23rd, when Mr. Frank Blackmore, C.A., spoke on the subject "The Accountant's Horizon".

The speaker traced the growth and development of the accounting profession and pointed out that the increasingly exacting demands of business and industry created limitless opportunities for the Industrial Accountant. Mr. Blackmore drew attention to those areas in which the accountant could yet increase the value of accounting functions to management.

The meeting was under the direction of Chapter Chairman J. M. Cafferty, and the speaker was introduced by Walter W. B. Dick.

In the report of the first meeting of the Chapter, carried in the October issue of Cost and Management, the election of officers was omitted. The officers are as follows:

Chairman, J. M. Cafferty; Vice-Chairman, D. R. Hunter, R.I.A.; Secretary-Treasurer, E. Frenette; Chairman, Membership Committee, H. Buchanan; Chairman, Student Committee, W. Wills; Director, Walter W. B. Dick, C.A., R.I.A.

MONTREAL CHAPTER

The Chapter held its opening dinner on Thursday, October 12th, in the main dining room of the Ritz Carleton Hotel.

There were 250 members and guests present, to hear Mr. Edward C. Wood, the president of Imperial Tobacco Company of Canada deliver an address entitled: "Canada—Land of Hope".

Mr. V. F. Davies, the chairman of the Montreal Chapter, presided.

A cross-section of business was represented at the head table, including:

His Worship Camillien Houde, Mayor of Montreal; Mr. A. S. Keiller, Sherwin-Williams Co. of Canada; Mr. A. V. Madge, Crawley and McCracken Ltd.; Mr. J. B. Stirling, E. G. M. Cape and Co.; Mr. D. J. B. Peddie, Shawinigan Chemicals Ltd.; Mr. D. M. Farish, Northern Electric Co. Ltd.; Mr. G. B. Gordon, Dominion Textiles Ltd.; Mr. J. A. Fuller, Shawinigan Water & Power Co.; Mr. J. P. Gauthier, Chambre de Commerce; Mr. A. J. Cunningham, Sun Life Assurance Co.

In the course of his address, Mr. Wood stated that "Increased productivity is the only answer to the present 'grim and forbidding picture' of Canada's economy. Canada must make not only the 'necessary' increase in arms production, but also persist in the broader sense, of increasing the total of goods and services being produced in Canada."

PETERBOROUGH CHAPTER

Peterborough Chapter of the S.I.C.A.O. entertained members of Ottawa and Bay of Quinte Chapters at their meeting, on October 27, 1950. Chairman Arthur Pitchford, of Peterborough Chapter, welcomed the visitors and representatives Cliff Watt, of Ottawa, and Bob Taylor, of Bay of Quinte, spoke briefly. Prior to the meeting, the visitors toured the plant of the Quaker Oats Company of Canada Limited.

Mr. W. F. Lougheed, economist of the Canadian Bank of Commerce,

CHAPTER NOTES

Toronto Head Office, spoke to the Chapter on the problems confronting the Canadian economy to-day.

Commenting on the remarkable increase in the price index, he said that the Canadian economy leans heavily on the trade factor. This is borne out by the fact 3 of 8, gainfully employed, are in that field. Our interest in world trade is most definite therefore. Effect of the Marshall Plan on trade generally, and the air it has given Canadian trade, was acknowledged.

He thought the increasing dollar value of U.S. imports had been an impediment to the establishment of a determined Canadian financial policy. Even with the freeing of the Canadian dollar, limiting Foreign Exchange Control restrictions exist. He felt a return to the inflexible exchange rate would be retrograde.

Mr. G. W. Hodgson introduced Mr. Lougheed, and Dr. Stern, of Ottawa Chapter, expressed the thanks of the combined Chapters.

TORONTO CHAPTER

The Toronto Chapter opened its 1950-51 season in a very auspicious manner, on Thursday, October 12th, at the Oak Room, Union Station. The attendance was good and the meeting was both instructive and interesting.

Mr. Clarence Fraser, B.A., of the Bell Telephone Company of Canada, and Mr. Robert Taylor, B.A., C.A., of The Steel Company of Canada Limited, were joint speakers of the evening.

These two gentlemen spoke to the meeting on "The Use and Development of Human Resources", and the attention given to their address and the questions, asked were evidence of the intense interest of the members.

Our next meeting is one which the Toronto members are looking forward to, and will be held on November 8th, at which time, our friends from Hamilton will make their annual visit to Toronto.

ST. MAURICE VALLEY CHAPTER

On the 21st of October, members and their friends made their annual plant visit. This time it was in two parts: Consumers Glass Company, Montreal West, and the Trappist Monastery, at Oka, on the Lake of Two Mountains.

At Consumers Glass Company, we were shown the intricacies of making bottles, from the small medicine ones to the "40 ozs.", to hold more invigorating spirits.

In the afternoon, we visited the College and farms of Les Trappistes. This is a contemplative order, but their work is known far and wide. The famous "Oka Cheese" has a large sale, and the farm produce is in keen demand. At the College, instruction is given in Agriculture and Science degrees.

On October 18th, our dinner meeting was well attended. Our speaker was Mr. I. S. Decary, Manager of the Public Relations Department, of Aluminum Company of Canada, who spoke on the Aluminum Industry in Canada. The growth of the industry in such a short time, was stressed by the speaker, and plans for large expansion are contemplated.

◆ C & M ROUND-UP ◆

By N. R. BARFOOT, R.I.A.

TAXES—TAXES

Tax income last year from all sources equalled 3,600 million dollars.

The Federal Government collected 66%

The Provincial Government collected 20%.

Municipalities collected 13%.

Ten years ago, this total was 1,064 million.

Personal income tax in 1950 will be 620 million. In 1946 it was 61 million.

Corporation tax will be 725 million in 1950. It was 113 million in 1946.

Sales Tax has jumped 3 times and liquor and tobacco taxes are 5 times greater in the 1940 to 1950 tax periods.

LIVING COST IN CANADA

(1935 - 39=100)

	Sept. 1950
Cost of Living Index Total	169.8
Food	218.8
Rent	135.5
Fuel and Lighting	140.8
Clothing	182.3
Home Furnishings and Services	171.1
Miscellaneous	132.8

DOLLAR DELUSION?

Accountants make accounting laws and interpret them to management. The foundation on which these laws are based is a permanent unchanging unit of currency.

Are the physical facts behind these dollars, truly representative and comparative? Have the dollars in cash, current inventory, 10-year-old equipment, 2-year-old buildings, equal worth?

SHIP BUILDING

The Canadian ship building industry has been notorious for its ups and downs. During the war years, 75,000 workers were employed. In 1949, 9,800 were on the payroll.

Good news for the shipyard employees is the placing of an order by the Naval Department for 18 ships, with a total value of \$43,250,000.00. This is in addition to a \$28,000,000.00 order, placed a few months ago.

ACCOUNTANTS AND PROFITS

Industrial leaders in the past years, in public have appeared to be making some kind of apologies for profits. Only a healthy free enterprise economy can produce profits. In this land the profits are an indication of its well being.

C. & M. ROUND-UP

The industrial accountant can contribute to a better understanding of our particular way of life by presenting the profit motif in its proper light, that of a healthy corporation, and therefore a sound national economy. The result should provide much-needed information for employees and the general public on the subject of how our business system operates.

This is a selling job for the accountant to explain the money part of industry to the public, as well as to industry itself.

PERSONALS

The Canadian Car and Foundry Co. Ltd. announced on October 2nd that Mr. A. Hodgkinson, formerly Comptroller and Treasurer of the Company, has now been appointed Vice-President in Charge of Finance. Mr. Hodgkinson has been a member of the Montreal Chapter for a number of years.

The Massey-Harris Co. Ltd. recently announced that R. H. Metcalfe, R.I.A., formerly Vice-President and Controller of the Company, has been appointed Vice-President in charge of General Administration. Mr. Metcalfe has been an active member of the Society for many years and is this year President of the Ontario Society and a member of the Co-ordinating Executive Committee.

E. R. McGee, R.I.A., was recently promoted to the position of Works Accountant of Dow Chemical Company Limited, in Sarnia. Mr. McGee was formerly secretary of the Windsor Chapter.

SIXTH INTERNATIONAL CONGRESS ON ACCOUNTING

The sponsoring bodies announce that the Sixth International Congress on Accounting will be held in the halls of the Royal Horticultural Society, Westminster, London S.W.1, in the week commencing June 16th, 1952. Further particulars will be issued in due course.

The following professional organizations will be hosts:—

The Institute of Chartered Accountants in England and Wales, The Society of Incorporated Accountants and Auditors, The Society of Accountants in Edinburgh; The Institute of Accountants and Actuaries in Glasgow, The Society of Accountants in Aberdeen, The Association of Certified and Corporate Accountants, The Institute of Chartered Accountants in Ireland, The Institute of Municipal Treasurers and Accountants, The Institute of Cost and Works Accountants.

SENIOR COST ACCOUNTANT

Large Ontario manufacturing company offers permanent position with excellent possibilities, to a fully qualified and experienced cost accountant. Must be capable of installing a Standard Cost System and Budgetary Control and will be required to administer a plant accounting department. Insurance and Pension plans available. In reply, please state age, training, experience, etc. to Box 19.

Current Literature Digest

By W. W. HENDERSON, R.I.A.

METHODS TIME MEASUREMENTS (MTM)—Factory Management and Maintenance, August, 1950.

MTM is a system of setting labor time standards. It is derived from basic motion studies, and is applied by the use of observation and tables. It operates independent of time study and the stop watch.

Research into its merits is being conducted at Cornell University and Virginia Polytechnic Institute. No claims are made that it wholly eliminates the need for Time Study. Normal and pure effort is classified—levelling-out allowances for Personal, Fatigue and Delay factors are not included. The article states that the average operator performs at about 20% in excess of MTM standards with P, F and D allowance added. If workers in a plant are accustomed to earning 30% bonus, then probably an incentive allowance needs to be added to the "pure effort" time standards.

Questions asked are:—

1. Will MTM make stop watches obsolete?
2. Will MTM replace work-simplification?
3. Will MTM eliminate grievances?

Answers given are:—

1. Not generally, despite the fact it has done so in some plants.
2. No. Work-simplification and MTM complement each other perfectly.
3. No, but properly handled, it can go a long way in that direction.

The article states: "MTM is based on a concept developed by H. B. Maynard, Gustave Stegemerten and John L. Schwab, while they were at Westinghouse Electric Corporation. The three are now associated consultants in Methods Engineering Council."

The article further states: "MTM is the only published system that meets all four of these tests for standard data:—

1. The data must be absolutely consistent at all times, and under all conditions.
2. It must be possible to reproduce the data.
3. It must be possible to apply the data quickly and cheaply.
4. It must be easy for the operator to understand the data.

There are other systems that might meet those tests. But while time values have been published for other systems, basic research data have not been made available for impartial investigations and analysis. The situation could change any time, but right now, MTM stands alone as the only tool of scientific management that can be proved to have met the tests."

OUR ACCOUNTING SYSTEM TELLS WHERE EVERY MAINTENANCE DOLLAR GOES—

by J. Earl Steinhauer, in *Factory Management and Maintenance*, August, 1950.

This article explains the use of composite account codes by the Fair-

CURRENT LITERATURE DIGEST

child Aircraft Division. Identification of Maintenance expense under five categories, is made possible by the composite code, namely:—

1. Operating division requesting work.
2. Nature of expense for (a) labor, (b) material.
3. Type of plant asset involved.
4. Plant number.
5. Operating department, where work is done.

For example, the code number: 4 — 450 — 0605 — 180 can be interpreted thus:—

- 4—Division requesting work—*manufacturing*.
- 450—Nature of expense—*Rearrangement and alterations (labor)*.
- 06—Type of plant asset—*machinery*.
- 05—Plant number—5.
- 180—Represents operating department where work is done.

The combination code permits reports to be classified on any one of 5 bases. Extraordinarily close control of maintenance expense is claimed possible because of the code system.

BUDGETING: THE USE OF COST CONCEPTS AND PATTERNS—by C. W. Emshoff, C.P.A., in the *Controller*, September, 1950.

The author first explains the concepts of variable and fixed costs. He defines a fixed cost as one, fixed in relation to time; but variable in its relationship to volume.

Mr. Emshoff illustrates by written word and graphic chart, the vagaries of cost behaviour at different levels of activity. Probably too often we forget that fixed cost and variable cost lines will not always appear as straight ones in a chart portraying actual cost experience. He categorizes individual types of cost increments, in relation to the activity factors normally accepted as governing them, as:—

1. Long step costs.
2. Short equal step costs.
3. Short unequal step costs.

His charts indicate that in No. 1, irrespective of the extent of cost increase at one point along the activity line, that cost will continue on a relatively straight and horizontal line for some distance along the volume route before again changing in amount. The next change in amount will probably be to about the same extent as the one before. If you conceive cost as being read against a vertical scale, and volume being read against a horizontal scale, you can visualize steps each of about the same height, but varying in length. Number 2 shows that changes in cost amounts are fairly uniform in extent, as they move along the volume route; but change they do, at the end of almost every small volume range, and such ranges are about equal in extent. In number 3, cost behaviours are likely to be non-uniform, both as regards volume range and amount increases.

In practice, each account classification would have its own chart; and such would fit one of the three categories mentioned. But when all costs are charted compositely, you will probably get a variable cost line which will curve sharply downwards to the base line at low activity levels, but probably will, within average volume ranges, maintain a reasonably straight course. The fixed cost line will probably portray the profiles of small hills and valleys on the horizon. This is the result of averaging. However, there

COST AND MANAGEMENT

is a reason for the behaviour of cost lines in the individual accounts chart. Determination of such will be of inestimable benefit in budgeting.

A STANDARD COST PROCEDURE WHICH FACILITATES HANDLING OF PRODUCTION ORDERS—by D. S. Brigham and Kenneth Connors, Sr., in the N.A.C.A. Bulletin, Section 1, August, 1950.

The author describes the method by which his company records costs relative to three types of part-product or product acquisitions—(1) outside purchased parts or raw materials; (2) internally manufactured parts; and (3) assemblies. The cards form standard cost, labor and overhead costs relative to an internally produced part on the same card as has been used to house the cost of the same part when purchased outside. This is obtained by having labor and overhead columns on the card, which add to the raw material value when labor and/or overhead is expended internally.

The Company, whose routines are exemplified, takes up raw material price variance at the time of purchase; and all variances are charged against or credited to Income.

The author explains the close relationship existing between production orders and the standard cost sheets.

Labor time standards stem from three sources:—

1. Time studies.
2. Comparable operations.
3. Combination of Time Studies and comparable operations.

Red rates—temporary ones—are set up on production orders when no others are available. They serve as signals to the Time Study department, to make the necessary studies.

The pricing policy adopted for year-end inventory valuation, constitutes the basis of standard costs for the next period. The implication in consequence would be that overhead, labor rate and material price variances are analyzed so that subsequent standards will be attempted by lesser variance amounts.

FINANCIAL PLANNING AND ITS RELATION TO COSTING—by A. H. Syme, C.A., A.C.W.A., in the "Cost Accountant" (U.K.), August, 1950.

This is an article which initially was delivered as a paper, at the Summer School of the Institute of Cost and Works Accountants, at St. Catherine's College, Cambridge.

Mr. Syme deals with management control on the basis of the present as well as the future. For example, in sales budget creation, firm orders on hand, contribute greatly to the final estimate of quantity of product projected for future sale.

Down-to-earth methods of budget administration are suggested and illustrated—not to the exclusion of information on budget creation; but certainly the emphasis is on "making budgets work" rather than on just "making budgets".

Planning of practically every phase of industrial activity is dealt with and in adequate detail. Sales budgets, production budgets, work-in-process estimates and analyses, application of funds statements on a forecast basis, and financial planning in matter of funds acquisition—all these subjects constitute part of the article's context.

Mr. Syme has contributed materially to a more adult and mature conception of planning and budgetary control.

CURRENT LITERATURE DIGEST

OTHER ARTICLES OF INTEREST

- The Relative Efficiency of Large, Medium-Sized and Small Business, by Richards C. Osborn—The Accounting Review, July, 1950.
- Uses of Cost Data for Production and Investment Policies, by Leonard A. Doyle—The Accounting Review, July, 1950.
- Price and Mortality Expectations and Valuations of Inventories, by John Pagani and William O. Jones—The Accounting Review, July, 1950.
- An Analysis of the Forces Shaping the Future of Accountancy, by Thomas Henry Sanders—The Journal of Accountancy, October, 1950.
- Seven Major Problems in Handling the New Industrial Pension Plans, by Paul Kircher, C.P.A.—The Journal of Accountancy, October, 1950.
- Realization Basis of Determining Income, Avoids Inflationary Distortions, by K. Englemann—The Journal of Accountancy, October, 1950.
- Accounting Problems of Dealers' Reserves in Instalment Financing, by Arno Herzberg, C.P.A.—The Journal of Accountancy, October, 1950.
- Early Closing, by Walter H. Dupka—The Controller, October, 1950.
- Directed Energy in the Office, Through Work Distribution Analysis, by Jerome Barnum—The Controller, October, 1950.

ADDRESSES OF PUBLICATIONS

- The Accounting Review, 450 Ahnaip Street, Menasha, Wisconsin.
- The Controller, 1 East 42nd St., New York 17, N.Y.
- The Cost Accountant, 63 Portland Place, London W. 1, England.
- Factory Management and Maintenance, 330 West 42nd St., New York 18, N.Y.
- The Journal of Accountancy, 270 Madison Ave., New York 16, N.Y.
- N.A.C.A. Bulletin, 505 Park Ave. (Fourth Floor), New York 22, N.Y.

SYDNEY E. NICHOLSON

It is with profound regret, that we announce the death of Sydney E. Nicholson, at Toronto, on November 20, 1950. Mr. Nicholson was a partner of the firm of MacDonald, Nicholson & Co., Chartered Accountants, and formerly Secretary-Treasurer of Sheldons Ltd., Galt, Ontario.

Mr. Nicholson was a member of the Institute of Chartered Accountants of Ontario, and was a registered member of the Society of Industrial and Cost Accountants of Ontario, having been admitted on incorporation. He was very active in the interests of the Society, having served as Chairman of a number of committees. He was elected President of the Ontario Society for the year 1948-1949, and at the time of his death, he was Chairman of its Legislation Committee.

In the passing of Mr. Nicholson, the Society has lost a most valuable member and friend, and one who has contributed immeasurably to its progress. To Mrs. Nicholson, and his daughter, Carol, the Society extends sincere sympathy.

The Significance of Sales Volume in Establishing List Prices

By F. W. PEAKE

How to establish accurate selling price differentials for quantity orders, is a problem confronting almost every type of manufacturing business. This article illustrates a method of relating selling prices to volume, more particularly in a business with a high ratio of fixed expense.

Many Cost Accountants, like those in the pharmaceutical manufacturing industry, find their biggest job is still unfinished after they have set up a system which gives them accurate Manufacturing Costs. When Manufacturing Costs represent a relatively small part of the total expenses of an industry, the Cost Accountant must devise some system whereby other expenses can be included in selling prices, and, at the same time, take advantage of as many variables as possible in establishing a sound price structure. He must, in this day of increasing competition, have a clear understanding and be able to make a practical application of the effect sales volume has upon the recovery of certain relatively fixed operating costs. No company has ever paid expenses by the wide spread between costs and selling prices shown on its cost cards, and although it is easy to understand that the sale of ten units, each of which will return a clear profit of \$1.00, will be better for the company than the sale of three units, each of which will return a clear profit of \$2.00, this simple fact is often buried in the maze of a complicated pricing system. The Cost Accountant knows that it costs a substantial amount for fixed operating expenses, as well as direct selling expense, to cover each salesman's call on a prospective customer. This fixed expense can be recovered only by the volume of business received.

Although it may be the primary responsibility of the Sales and Advertising Managers to train the salesman and create interest in the prospect's mind, the sales-minded Cost Accountant can play an equally important role. It is his responsibility to furnish the salesmen with prices which, insofar as possible, are in line with competition, and at the same time, have the pricing policy offer the customer the incentive to increase the size of

SALES VOLUME IN ESTABLISHING LIST PRICES

his order. As an illustration, consider the following condensed Profit and Loss Statement:—

	Amount	Percent
Net Sales	\$2,000,000.00	100.0
Cost of Goods	690,000.00	34.5
Gross Profit	<u>\$1,310,000.00</u>	<u>65.5</u>
<i>Expenses:—</i>		
Sales	764,000.00	38.2
Office	102,000.00	5.1
Administrative	124,000.00	6.2
Advertising	154,000.00	7.7
Total Expenses	<u>\$1,144,000.00</u>	<u>57.2</u>
Operating Profit	\$ 166,000.00	8.3

If as a result of changes in pricing policy, it were possible to secure an additional sales volume of \$200,000.00 at a Cost of Goods increase from 34.5% to 50%, and an increase in expense of \$15,000.00, the above Profit and Loss Statement would be changed to read as follows:—

	Amount	Percent
Net Sales	\$2,200,000.00	100.0
Cost of Goods	790,000.00	35.9
Gross Profit	<u>\$1,410,000.00</u>	<u>64.1</u>
Expenses	<u>1,159,000.00</u>	<u>52.7</u>
Profit	<u>\$ 251,000.00</u>	<u>11.4</u>

If, as illustrated, a \$200,000.00 or 10% increase in sales can increase profits \$85,000.00, or 51%, careful consideration should be given to these figures. Granting that the figures are hypothetical, they illustrate the very great significance of volume to profit, and the absolute need of the Accountant's understanding and practical application of this relationship if he is to be of real service to his company.

Referring again to the above illustration, it would seem at first glance that an impossibly favourable assumption is made for the additional \$200,000.00 in business at an expense of \$15,000.00. Further analysis proves, however, that most of the company's expenses had been absorbed by the initial \$2,000,000.00 in sales. It is also indicated that price con-

COST AND MANAGEMENT

cessions were made, as the Cost of Goods on the additional business increased to 50% from a previous 34.5%. But since expenses were increased only \$15,000.00, there could be only a limited increase in sales personnel and advertising. Where then did this additional business come from? One very good source could have been the business received on bids, which resulted from a more volume conscious pricing policy. The other, and more important, source could have resulted from revamping the entire price structure applicable to the company's products in line with the same volume consciousness.

From relatively fixed Manufacturing Costs, we must build up to our List Price. To simplify the consideration of our suggested plan, we will assume that the company under review pays its salesmen a fixed salary. The reason for this is because it is believed that most companies now use this basis of compensation, and also because it limits the extremely wide variations in prices available to companies paying their salesmen on a commission basis.

As the above illustration shows Cost of Goods as 34.5%, the selling price of a product having a Manufactured Cost of \$1.50 would be \$4.35, which is determined by this standard formula:—

The Reciprocal of 34.5 is $2.8986 \times \$1.50 = \4.35 .

At this point it must be remembered that the \$4.35 is a selling price and not a list price. If an analysis of sales shows an average trade discount of 12% is allowed from list, then the factor of 2.8986 is only 88% of the factor which should be used to establish a list price. The adjusted factor is 3.2939 which, when multiplied by \$1.50, Manufacturing Cost, gives a List Price of \$4.94. This figure can be proved as follows:—

	Amount	Percent
List Price	\$4.94	
Less Average Trade Discount (12%)59	
Sales	\$4.35	100.0
Cost of Sales	1.50	34.5
	\$2.85	65.5
Expense Recovery	2.49	57.2
Profit	\$.36	8.3

SALES VOLUME IN ESTABLISHING LIST PRICES

As a substantial portion of the expenses which total 57.2% of sales are fixed, this percentage of expenses to sales will decrease as volume increases. We shall not discuss this variance, but rather accept the fact that we can be assured of a greater than estimated profit if, as volume increases, we allocate the same percent of sales to cover expenses. Our objective is to set up a plan for the establishment of list prices, which will return an estimated profit and, we are not concerned when we know that the proper control of the plan will actually return a higher percent of profit than that estimated. This reasoning keeps us from becoming involved in calculations which might easily divert our thoughts from our main objective which is the proper consideration of costs in the establishment of list prices.

In our illustration, 57.2% of sales must cover expenses, regardless of profit, and any variation in estimated profit percent would be offset by a corresponding offsetting variation in the Cost of Sales percent. Therefore, list prices returning variable profits could be determined, as follows, when using again a Manufacturing Cost of \$1.50 per unit:—

Expense Recovery	57.2	57.2	57.2	57.2	57.2
Profit	None	5.0	8.3	10.0	15.0
Cost of Goods	42.8	37.8	34.5	32.8	27.8
	100.0	100.0	100.0	100.0	100.0
Selling Price Factor	2.3365	2.6456	2.8986	3.0488	3.5972
List Price Factor	2.6552	3.0064	3.2939	3.4646	4.0878
List Price	\$3.98	\$4.51	\$4.94	\$5.20	\$6.13
Selling Price	\$3.50	\$3.97	\$4.35	\$4.57	\$5.39

Applying these figures to variable sales units, we compile the following Schedule:—

Number of Units Sold	Mfg. Cost		List Prices Established to Return Varying % of Profit					
			No Profit	5% Profit	8 3/4% Profit	10% Profit	15% Profit	
	Unit Cost	Total Cost	2.6552	3.0064	3.2939	3.4646	4.0878	
1	\$ 1.50	\$ 1.50	\$ 3.98	\$ 4.51	\$ 4.94	\$ 5.20	\$ 6.13	
12	1.50	18.00	47.79	54.12	59.29	62.36	73.58	
25	1.50	37.50	99.57	112.74	123.52	129.92	153.29	
100	1.50	150.00	398.28	450.96	494.08	519.69	613.17	

Working papers should be compiled upon which the above and also the following information is shown on each product:—

1. Estimated sales for current year.
2. Percent of total sales.

COST AND MANAGEMENT

3. Accountant's recommended list prices.
4. Several columns to be used by the Sales Department.
5. Sales Department's recommended list prices.

As Schedules are completed by the Accounting Department, they should be given to the Sales Department so they may complete their portion. After all Schedules are completed, an Executive Meeting should be called as all the information needed to make a final determination of list prices would then be available. The flexibility of the above Schedule is obvious, but so that each executive attending the price-fixing meeting will know the exact sales volume required to return the same amount of expense recovery and profit at different volume levels, he should be furnished with the following Schedule:—

<i>Percent and Amount of Selling Price to Recover Expenses by Profit</i>					
Percent	57.2	62.2	65.5	67.2	72.2
Amount	\$2.00	\$2.47	\$2.85	\$3.07	\$3.89

Relationship of number of Units which must be
sold to return the same dollar value of

Expense Recovery and Profit

	No Profit	5% Profit	8.3% Profit	10% Profit	15% Profit
Units Req. to 1 @ 15%	1.946	1.575	1.365	1.268	1.000
Units Req. to 1 @ 10%	1.536	1.243	1.077	1.000	.789
Units Req. to 1 @ 8.3%	1.426	1.154	1.000	.928	.733
Units Req. to 1 @ 5%	1.236	1.000	.867	.805	.635
Units Req. to 1 @					
No Profit	1.000	.810	.702	.652	.514

*To illustrate, divide \$3.89 by \$2.00=1.946.

The significance of these figures is that if it is desired to meet a competitive price of \$4.94 on a product which returned 15% profit when sold at \$6.13, the same profit can be realized if 36.5% more units are sold; or it could be sold for \$4.51 and return the same profit if 57.1% more units are sold. The highest price consistent with good business will be retained on each package size. However, if it is advisable to recover a 15% profit by selling one unit at \$6.13, it does not necessarily follow that a price of \$613.17 to return 15% profit on 100 units would be justified. Considering the fixed expense recovery of 57.2% of sales, prices must, if possible, be established at a point which will get the customer's order. It is for this reason that the united

SALES VOLUME IN ESTABLISHING LIST PRICES

opinion of executives with special consideration given to the Sales Department's knowledge of competitive prices is required to intelligently establish list prices. After this consideration, it may be that prices on one product are established as follows:—

Units Sold	List Price	Average Discount	12% Average	Selling Price	Av. Customer Cost Per Unit	Percent of Profit	Expense Recovery	Profit Total
1	\$ 6.13	\$.73	\$ 5.40	\$5.40	15	\$ 3.09	\$.81	\$ 3.90
12	62.36	7.48	54.88	4.57	10	31.39	5.49	36.88
25	123.52	14.82	108.70	4.35	8.3	62.18	9.02	71.20
100	450.96	54.12	396.84	3.97	5	227.00	19.84	246.84

Let us assume that prior to establishing the above prices, there was considerable discussion of the 100-unit quantity, as the only real competitor was selling this quantity of a similar product for \$465.00. Such a competitive price quickly eliminated any hope of setting a price of \$613.17 or \$519.69, which would return a profit of 15% and 10%, respectively, on each order.

Serious consideration was given to the price of \$494.08, which would return 8.3% profit, and it was only after considerable discussion that the price of \$450.96 was decided upon. The Schedule showing the relationship of units sold to profit recovery shows that it would be necessary to sell only 15.4% more units at \$450.96 to return the same profit as would be realized if the price were \$494.08. The Sales Manager was insistent that his men could sell twice as many orders at the lower price, which would enable them to undersell their stiffest competition. However, the President was quite skeptical until he was shown a Schedule prepared by the Accountant which showed the results of selling only 50% more orders at \$450.96, than could be sold at \$494.08:—

List Price for 1 Order	\$ 450.96	\$ 494.08
List Price 9 Orders	\$4,058.64	
List Price 6 Orders		\$2,964.48
Less 12% Trade Discount	487.04	355.74
Selling Price	\$3,571.60	\$2,608.74
Cost of Goods \$150.00 per order	1,350.00	900.00
	\$2,221.60	\$1,708.74

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Normal Expense Recovery 57.2%		1,492.20
Normal Expense Recovery plus 20% Direct Selling Expense on additional \$962.86	1,684.77	
Profit	\$ 536.83	\$ 216.54
Percent of Profit	15%	8.3%

This Schedule not only convinced the President that it would be good business to establish a price of \$450.96 for 100 units of this product, but it also illustrated a more important point. Although only 5% profit was estimated on the sale of one order at \$450.96, a profit of \$536.83, or 15%, would be realized on the sale of nine orders, because expense recovery on these sales would be only 47.2% of sales, rather than the 57.2% allowed in the original computation. The President realized that if he could get enough of these larger volume orders during the year that he might be able to reduce his percent of expenses to sales by as much as 5% on his entire business. If this were done, his Accountant could then recompute all of his theoretical list prices, and, on the basis of a 5% reduction in expense, be able to show a larger profit on less competitive items, and a lower theoretical list price on more competitive items. For this reason, the President approved the \$450.96 price on 100 units of this particular product and was more willing to make reasonable price concessions on the larger dollar volume units of other products.

Such a pricing policy offers a real incentive to the customer to purchase in larger quantities, and, as a result of such purchases, the company secures a substantial expense recovery which might be lost if a less realistic pricing policy were used. Of more importance, this plan enables management to know how far it can go to meet competition, and, at the same time, not lose control of its expense recovery.

A careful record must be kept of the additional number of units which must be sold at prices which have been lowered to meet competitive prices. To assume that a lower price will, in itself, correct the lack of sufficient sales volume would be contrary to the results of past experience. However, this situation can easily be controlled, if purchase card or similar sales statistics are available, by determining the number of additional units which must be sold at the lower price, and making a monthly

SALES VOLUME IN ESTABLISHING LIST PRICES

check of the statistical report to determine whether or not corresponding sales increases are being made; if not, these facts should be called to the attention of the Sales Department, and corrective action taken as soon as possible.

From these Schedules, the Accountant has information available which will be extremely useful after the primary purpose of price determination has been served. He will extend the Schedule so that he will know the factor to apply against Manufacturing Costs to return as wide a range of percentages of profit as he needs for his use. With this information available, he can quickly compute attractive deals as a further aid to the Sales Department, and be able to tell management the exact percent of profit on each deal. These Schedules are also needed to quickly compute theoretical list prices at varying profit returns, which will permit the use of sound judgment when establishing list prices on new products.

The chief advantage of the plan is the simplicity of its operation and the assurance that prices are set to recover estimated profit so long as there is no great variation between the percentages used in making the basic computation to recover expense and profit, and those same percentages shown on the monthly Profit and Loss Statement. When these percentages change sufficiently to justify a recomputation, the Accountant need only recompute his factors, and the balance of the work can be done by calculating machine operators in a minimum of time and without a great deal of his personal supervision.

THE CANADA YEAR BOOK 1950

The Dominion Bureau of Statistics announces the release for distribution of the 1950 Edition of the Canada Year Book. Published by the Bureau, under authority of the Minister of Trade and Commerce, the Year Book contains a wealth of factual information about Canada.

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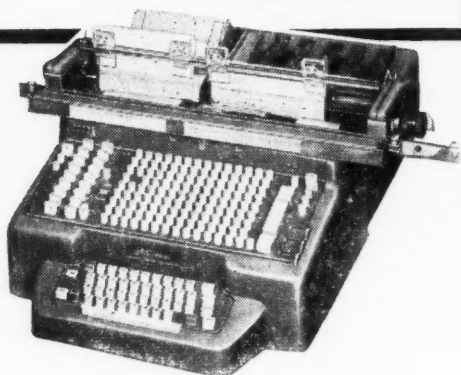
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**THE NATIONAL CASH REGISTER COMPANY
OF CANADA LIMITED**

Cost Accounting in a Diversified Food Industry

By J. GRANT McKNIGHT, R.I.A.

This is the second part of the thesis, presented by the author to qualify for Registered Membership in the Society. Part I was published in the October issue. In this article, the author deals with Inventory Control, Sales Analysis, Distribution Costs and Presentation.

INVENTORY CONTROL

A great deal of importance is attached to the control of inventories in this Company and considerable time is devoted to the various aspects of such control. Our inventories represent possibly our most valuable asset and consequently receive constant attention in an effort to prevent losses from:—

1. Deterioration, obsolescence, and extra handling costs due to overstocking.
2. Improper rotation of stocks.
3. Improper inventory valuation.
4. Excessive inventories resulting in stagnation of working capital.
5. Damage from weather, fire, etc., due to faulty warehousing.
6. Sloppy receiving practices.

It is planned to outline briefly the Inventory Control procedure under the following headings:—

- (a) Cost Accounting
- (b) Physical Counts
- (c) Slow Moving Stock
- (d) Material and Production Control

(a) Cost Accounting

A perpetual inventory is maintained in card form for all items except those for which such a record is impractical due to the small usage and consequent difficulty in reporting. However, a "total" card is kept for the latter items to which is posted changes and credits in dollars only. At regular intervals such items are physically checked and records adjusted accordingly. The inventory cards show quantity, amount and average cost.

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Raw Material and In Process Inventory

Receipts, by manufacture purchase or transfer are entered in quantity and value. The cost of raw materials and supplies, including unloading and freight costs, is entered in the received column of the inventory card. Produced quantities and their costs are entered as receipts for all in-process stocks. Current balances are determined and average unit cost computed, for use in pricing the material used during the month. Material used as indicated on the "Material Used Accumulation Sheets" is entered in the used column of the inventory cards by quantity and value and the month-end balances calculated.

Finished Stocks

Receipts are entered in the received column in quantity and value from the Finished Product Performance Statements. Average unit costs are determined and used in arriving at Cost of Goods Sold.

(b) Physical Counts

Since no statement of costs, earnings or assets is reliable unless inventories have been physically verified, a system of physical counts on a progressive monthly basis is maintained so that (a) the entire Finished Product Inventory is covered three times each year (b) Work in process each month (c) Raw Materials twice yearly. However, a monthly count is executed on certain items where it is felt that the inventory value is sufficient to warrant monthly verification or in the event that a physical count is necessary to verify usage.

Costs, Inventories, Reports to Stockholders, etc., mean little or nothing if based on non-existent or incorrectly stated inventories with the result that inventory differences discovered by physical counts are adjusted immediately. Raw Material and Work in Process adjustments are made through the material used while Finished Products are adjusted by reducing or increasing production figures as necessary. However, any sizeable difference is not just accepted by the Cost Department as a fact but is physically rechecked; book records examined for possible discrepancies and directed to the attention of both the Warehouse and Plant Superintendent.

(c) Slow Moving Stock

As a further point in the Inventory Control program, all inventory items are reviewed periodically with a view to establishing "Slow Moving". This term may be broadly defined as:—

DIVERSIFIED FOOD INDUSTRY

- (a) A material or supply item no longer usable because of formula or equipment changes or one on which a reasonable turnover is not being realized.
- (b) Finished Products on which a reasonable turnover is not being realized.

This measure will, of course, vary considerably between commodities depending upon the value, bulk or quantity, perishability, obsolescence, etc., all of which must be taken into consideration in properly assessing the current condition of inventories.

In the interest of properly disposing of dormant inventories, a slow moving report is prepared listing the various items considered in this category and circulated to Divisional Heads.

All persons connected with Inventories are charged with being constantly alert to spot stock which may be obsolete, and the Cost Department and the Production Planning Department co-operate to focus attention on items which may be rendered obsolete by the changing of production specifications as to grade, color, condition, printing, size etc.

(d) Material and Production Control

Without a doubt, one of the most important factors in keeping inventories in step with requirements is a realistic Sales Forecast properly translated into a production schedule. If this can be accomplished, the possibility of deterioration, obsolescence and the freezing of working capital is reduced to a minimum.

It is possible to forecast a sales program within reasonable limits of accuracy for a year ahead and for the forthcoming quarterly period sales estimates should be very realistic. However, for complete co-ordination between Sales and Production, a perpetual record is maintained in the Sales Department which exhibits at all times the relationship between current Finished Product requirements and Stock on Hand. This record provides a card for each commodity upon which is entered daily the following (i) Production (ii) Sales Orders received. By adding Production to the previous daily stock balance and deducting the Orders Received the inventory position is determined well in advance of the actual shipping of the merchandise. Each item has a predetermined Minimum and Maximum stock requirement entered on the card with the result that a dangerous stock position caused by a surge or unexpected decline in the sale of any

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given commodity is quickly discernible. When such a condition develops, the information is relayed to the Production Department and fitted into the production schedule.

With the closely integrated plans of sales and production, it is possible to also practice a policy of rigid raw material control. The Production Forecast is translated by the Planning Department into material requirements and Purchase requisitions and Production Orders prepared as necessary to bring the particular inventory items in line with need and availability. Every effort is made to keep raw material and in process inventories to a minimum commensurate with efficient production scheduling by a scientifically engineered system of planning.

SALES ANALYSIS AND DISTRIBUTION COSTS

The importance of Sales analysis and Distribution costs is particularly emphasized at the present time, when we are definitely returning to a "Buyers' Market". Competition is once again the life of trade; a marketing condition to which many sales organizations are unaccustomed. In this era, it is necessary for the sales force to make every marketing expense dollar count and to assist in accomplishing this, it is most essential that accurate distribution costs be developed. Again the proper presentation of Sales analysis and Distribution cost data to the Sales and Administrative executive governs the degree of its effectiveness.

In this Company the management is provided with the following sales and marketing cost analyses:—

- (a) Net Sales by unit and dollar value and Gross Profit for each commodity.
- (b) Net Sales and Gross Profits by Commodity Group; by Geographical Division and Net Profit by Division.
- (c) Net Sales by Geographical Zones; by Commodity Group.
- (d) Net Sales by Commodity Group; by Salesman.
- (e) Net Profit by Salesman.

These analyses provide timely information in easily digestible form and direct the attention of the responsible Company officials to sales and expense facts on which profit making policies may be based.

Sales Analysis and Gross Profit Statistics

The detailed sales analysis is accomplished with tabulating

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equipment. Each Sales invoice indicates the following information which is punched on tabulating cards:—

- (a) Invoice Number
- (b) Zone Number
- (c) Salesman's Number
- (d) Commodity Code
- (e) Quantity
- (f) Net Sales Value (excludes freight, sales tax, etc.)

These cards are sorted by commodity; by geographical zone and listed. Unit Cost provided by the Cost Department is multiplied by quantities at this point which results in Cost of Goods Sold by Commodity by Zone. By grouping Commodities and Zones, it is possible to produce Commodity Groups; Salesman, and Territorial Divisional information for Sales and Gross Profit.

Overhead Expense Distribution

Selling expense is divided into two classes:—

- (i) Direct Selling Expense
- (ii) Indirect Expense

Direct Selling expense is the actual expense of maintaining the salesmen in the field, and Indirect Selling expense is the cost of the Selling Administration. The latter, as well as General Administrative Expense is distributed to Geographical Zones on the basis of a predetermined Sales potential rather than on Sales made. This means that certain areas are not penalized with more than their just share of these expenses simply because sales are below expectations in a given zone.

Advertising expense is distributed to Salesman on the basis of the amount budgeted for the particular area worked.

Of course, once the distribution of marketing and administrative expense has been accomplished by Salesmen, it is possible by the summary method to produce the cost by Territory, Division, etc.

PRESENTATION

In the description of this Cost Accounting System, possibly the subject of "Presentation" should be discussed. It is believed that many Cost Accounting Systems fail dismally in the matter of placing information before Company executives. Cost facts of vital importance are hidden away between the covers of cost ledgers and are never used to enlighten management. This type of Cost System which develops "Cost of Sales" only is a pretty

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expensive proposition when it is realized that significant information is easily presented which may have much to do with the successful or unsuccessful operation of the Company.

As mentioned elsewhere in this thesis under the subject of "Actual Costs", a large part of the Factory Cost presentation of this Company is a by-product of the cost accounting necessary to develop unit cost of sales since current production, expense, material used, dollars, etc. are posted directly to the Cost Exhibit Statements rather than to a ledger as commonly constituted. Important and useful information regarding rates per man and machine hours, unit costs by cost element, standard unit costs, etc. are placed before Department Heads each month. However, it is realized that the maze of figures produced and submitted have a tendency to tempt the responsible officials to procrastinate in reviewing them, simply by the sheer weight of their apparent volume. The Cost Department, therefore, produce also a Cost Analysis which exhibits important information on all the main products and draws attention to any product or Department which is not performing in accordance with expectations.

« STUDENT SECTION »

COST ACCOUNTING

Comments by A. V. HARRIS, C.A., R.I.A.

QUESTION 2. (24 marks)

The Ardex Manufacturing Company manufactures the Product P for which the Standard Cost sheet showed the following predetermined costs for one unit:—

90 lbs. of material at \$2.00	\$180.00
120 hrs. of direct labor at \$1.30	156.00
Mfg. expenses applied \$0.25 an hour	30.00
	<hr/>
	\$366.00

Budgeted hours180,000

Quantity expected to be produced 1,500 units.

In the next six months the transactions took place as follows:—

Material purchased, 173,125 lbs.	\$328,937.50
Direct labor	228,000.00
Manufacturing expenses incurred	40,000.00

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Sales—1,200 units at \$549.00 each

Actual direct labor hours 182,400

Units completed 1,400

No work in Process Inventories at the opening or close of the period

Material used 130,000 pounds

Selling and Administrative expenses \$160,000.00

Required:

(1) Journal entries with explanations (seven variances required).

(2) Statement of Profit and Loss, allocating the variances against cost of goods sold.

Solution to Question 2.

1—Materials		\$346,250	
Accounts Payable			\$328,937.50
Material Price Variation			17,312.50
173,125 lbs. \times 10c =	17,312.50	Price Variation	
2—Direct Labor	237,120		
Payroll payable			228,000
Labor rate variation			9,120
Standard 182,400 hours @ \$1.40 =	\$237,120		
Actual direct labor	228,000		
		\$ 9,120	
3—Manufacturing Expenses	40,000		
Accounts Payable			40,000
Mfg. Expenses incurred			
4—Work in Process Material	252,000		
Material Quantity Variation	8,000		
Materials			260,000
Actual	Standard		
130,000 lbs.	126,000 (1400 \times .90)		
4000 \times \$2.00 =	\$8,000 variation		
5—Work in Process Labor	218,400		
Labor Performance Variation	18,720		
Direct Labor			237,120
Actual	Standard		
182,400 lbs.	168,000 hrs. (1400 \times 1.20)		
14,440 lbs. \times 1.30 =	\$18,720 variation		
6—Work in Process Mfg. Expenses	42,000		
Mfg. Exp. Efficiency Variation	3,600		
Mfg. Expenses Applied			45,600
Actual	Standard		
182,400 hrs.	168,000 hrs.		
14,400 hrs. \times .25 =	\$3,600 Eff. Variation		
168,000 \times .25 =	\$42,000 standard		
7—Mfg. Exp. Applied	600		
Mfg. Expenses Capacity Variation	600		600
Actual	Budget		
182,400	180,000		
2,400 \times .25 =	\$600 Capacity Variation		

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8—Mfg. Exp. Applied	5,000	
Mfg. Expenses Budget Variation		5,000
Actual		
Standard		
40,000	45,000	
9—Finished Goods	512,400	
Work in Process Materials		252,000
Work in Process Labor		218,400
Work in Process Mfg. Exp.		42,000
To record the cost of 1400 units finished at \$366.		
10—Cost of Goods sold	439,200	
Finished Goods		439,200
1,200 sold which cost was \$366. each		
11—Accounts Receivable	658,800	
Sales		658,800
1,200 units sold at \$549.00		
12—Selling and Administration expenses	160,000	
Accounts payable		160,000

THE ARDEX MANUFACTURING COMPANY

Statement of Profit and Loss

For the Six Months Ended 31st Dec. 1948.

Sales \$658,800.00

Cost of Sales:—

Cost of Goods Manufactured: (at Standard Cost)

Material	\$252,000.00
Labor	218,400.00
Manufacturing Expense	42,000.00

Cost of Goods Manufactured 512,400.00

Less: Closing Inventory Finished Goods

(at standard) 73,200.00

Cost of Goods Sold (at standard) ... 439,200.00

Add: Variances from Standard greater than Standard:—

Material Quantity

Variance \$ 8,000.00

Quantity Labor

Performance Variance 18,720.00

Manufacturing Expense

Efficiency Variance ... 3,600.00 30,320.00

469,520.00

Less: Variances from Standard less than Standard:—

Material Price Variance \$ 17,312.50

Labor Wage Rate

Variance 9,120.00

Manufacturing Expense

Budget Variance 5,000.00

STUDENT SECTION

Manufacturing Expense		
Capacity Variance	600.00	32,032.50
<hr/>		
Actual Cost of Goods Sold		437,487.50
<hr/>		
Gross Profit		\$221,312.50
Selling and Administrative Expense		160,000.00
<hr/>		
Net Profit		\$ 61,312.50

Comments on Question No. 2.

This problem required the development of the usual variances, and as heretofore in examinations on this subject most students found that they could calculate the material and labor variances, but were none too sure of the methods by which the manufacturing expense variances were to be ascertained. The average mark of students who attempted this question was good.

GENERAL ACCOUNTING

Comments by J. D. CAMPBELL, C.A., R.I.A.

QUESTION 2 (10 Marks)

L. Smith wishes you to determine the amount of his net sales for the current year. He provided you with the following information:—

Accounts receivable 1st January, 1949 (Dr.)	\$18,000
Accounts receivable 31st December, 1949 (Dr.)	15,000
Cash collections on accounts receivable during the year	74,000
Cash sales	27,000
Reserve for bad debts 1st January, 1949 (Cr.)	1,000
Reserve for bad debts, 31st December, 1949 (Cr.)	800
Provision for bad debts during 1949	500
Freight paid by us for customers and charged to them during the year	1,400

Required:

Compute the amount of the net sales for the year, indicating clearly the method followed in your computation.

Solution

Reserve for bad debts, 1st January	\$ 1,000 Cr.
Add provision for year	500 Cr.
	<hr/>
	\$ 1,500 Cr.
Less balance, 31st December	800 Cr.
	<hr/>
Bad debts written off	\$ 700 Dr.
	<hr/>
Accounts receivable, 1st January	\$18,000 Dr.
Less cash credits	\$74,000
Accounts written off	700
	<hr/>
	74,700 Cr.

Accounts receivable, 31st December	\$56,000 Cr.
	15,000 Dr.
Charges to customer during year	<u>\$71,700 Dr.</u>
Sales for year	
Charges to credit customers	\$71,700
Less charges for freight	1,400
	<u>\$70,300</u>
Cash sales	27,000
	<u>\$97,300</u>

An average mark of 50% was obtained in the over-all answers to this question, ranging, as between provinces, from 55% to 69%. The major error in the solutions presented, arose in the utilization of the bad debts information. From the information given in the problem, you are able to ascertain that the bad debts written off and credited to accounts receivable for the year, amounted to \$700, which increased the amount of the credit sales to a value of \$71,700.

Several students made the error of adjusting for the opening and closing balance in the accounts receivable, just opposite to what was required in the determining of the debit to accounts receivable, covering the credit sales made during the period.

